

Abstract

A new progressive compression scheme for arbitrary topology, highly detailed and densely sampled meshes

arising from geometry scanning. Meshes may have three

5 distinct components: geometry, parameter, and connectivity

information. The latter two do not contribute to the

reduction of error in a compression setting. Using semi-

regular meshes, parameter and connectivity information can

be virtually eliminated. The semiregular meshes may be

10 used with semi-regular wavelet transforms, zerotree coding,

and subdivision based reconstruction.